WHAT IS CLAIMED IS:

 A biopsy device suitable for use with a magnetic resonance imaging machine, said device comprising an elongated needle for receiving tissue therethrough, the needle comprising:

a distal needle segment comprising a tissue receiving port, the distal needle segment formed of a first material that does not interfere with MRI imaging of a portion of the distal needle segment associated with the tissue receiving port;

a proximal needle segment disposed proximally of the tissue receiving port, the proximal needle segment formed at least in part of a second material different from said first material.

- 2. The device of Claim 1 wherein the first material is non-metallic.
- 3. The device of Claim 1 wherein the first material is non-magnetic.
- 4. The device of Claim 1 wherein the first material comprises a liquid crystal polymer.
- 5. The device of Claim 1 wherein the first material has a melt flow index of at least about 15 grams/minute.
- 6. The device of Claim 1 wherein the second material comprises a metal.
- 7. The device of Claim 1 wherein the second material is non-magnetic.
- 8. The device of Claim 1 wherein the second material is selected from the group comprising aluminum, aluminum alloys, stainless steel, titanium, titanium alloys, and combinations thereof.
- The device of Claim 1 further comprising a distal piercing tip disposed distal of the tissue receiving port.

- The device of Claim 9 wherein the distal piercing tip comprises a non-metallic material.
- 11. The device of Claim 9 wherein the distal piercing tip comprises a material selected from the group comprising ceramics and glasses.
- 12. The device of Claim 1 wherein the proximal needle segment and the distal needle segment provide a continuous, smooth cutter lumen.
- 13. The device of Claim 1 wherein the proximal needle segment and the distal needle segment provide a continuous vacuum lumen.
- 14. The device of Claim 13 wherein the needle comprises at least passage extending from the vacuum lumen to an outer surface of the needle.
- 15. The device of Claim 14 wherein the distal needle segment comprises a plurality of passages extending from the vacuum lumen to the outer surface of the needle.
- 16. A biopsy device suitable for use with a magnetic resonance imaging machine, said device comprising:
 - a distal needle segment comprising a tissue receiving port communicating with a cutter lumen, the distal needle segment formed of a first non-metallic material:
 - a proximal needle segment formed at least in part of a metal, the proximal needle segment providing at least a portion of the cutter lumen, and wherein said metal is spaced proximally at least about 0.5 inch from a proximal edge of said tissue receiving port.
- 17. The device of Claim 19 wherein said metal is spaced between about 0.5 inch and about 2.5 inches from a proximal edge of said tissue receiving port.

- 18. The device of Claim 19 wherein said metal is spaced between about 0.5 inch and about 1.5 inch from a proximal edge of said tissue receiving port.
- 19. A biopsy device suitable for use with a magnetic resonance imaging machine, said device comprising an elongated needle for receiving tissue therethrough, the needle comprising:

a distal needle segment formed of a non-metallic material and having a lateral tissue receiving port communicating with a distal cutter lumen segment; and

a metallic proximal needle segment disposed proximally of the tissue receiving port, wherein the metallic proximal needle segment provides a proximal cutter lumen segment communicating with the distal cutter lumen segment.

20. The biopsy device of Claim 20 wherein the distal needle segment comprises at least a portion of a vacuum lumen.